

Title (en)

RECEIVER STRUCTURES FOR SPATIAL SPREADING WITH SPACE-TIME OR SPACE-FREQUENCY TRANSMIT DIVERSITY

Title (de)

EMPFÄNGERSTRUKTUREN ZUR RÄUMLICHEN SPREIZUNG MIT RAUM-ZEIT- ODER RAUM-FREQUENZ-SENDE-DIVERSITY

Title (fr)

STRUCTURES DE RECEPTEUR POUR L'ETALEMENT SPATIAL AVEC DIVERSITE DE TRANSMISSION ESPACE/TEMPS OU ESPACE/FREQUENCE

Publication

**EP 1790090 B1 20100120 (EN)**

Application

**EP 05794158 A 20050902**

Priority

- US 2005031450 W 20050902
- US 60737104 P 20040903
- US 60822604 P 20040908
- US 4212605 A 20050124

Abstract (en)

[origin: US7978778B2] A receiving entity obtains received symbols for a data transmission having at least one data symbol stream sent with space-time transmit diversity (STTD). The receiving entity derives an overall channel response matrix in accordance with the STTD encoding scheme used for the data transmission, derives a spatial filter matrix based on the overall channel response matrix, and performs spatial matched filtering on a vector of received symbols for each 2-symbol interval to obtain a vector of detected symbols for the 2-symbol interval. The receiving entity may perform post-processing (e.g., conjugation) on the detected symbols if needed. Alternatively, the receiving entity derives a spatial filter matrix based on an effective channel response matrix, performs spatial matched filtering on the received symbols for each symbol period to obtain detected symbols for that symbol period, and combines multiple estimates obtained for each data symbol sent with STTD.

IPC 8 full level

**H04B 7/08** (2006.01); **H04J 99/00** (2009.01); **H04L 1/06** (2006.01)

CPC (source: EP KR US)

**H04B 1/711** (2013.01 - KR); **H04B 7/08** (2013.01 - KR); **H04B 7/0854** (2013.01 - EP US); **H04L 1/0618** (2013.01 - EP US); **H04L 5/0023** (2013.01 - EP US); **H04L 25/0204** (2013.01 - EP US); **H04L 25/0242** (2013.01 - EP US); **H04L 25/0256** (2013.01 - EP US); **H04L 27/2613** (2013.01 - EP KR US); **H04B 7/0669** (2013.01 - EP US); **H04B 7/068** (2013.01 - EP US); **H04L 1/0606** (2013.01 - EP US); **H04L 25/0224** (2013.01 - EP US); **H04L 27/2626** (2013.01 - EP KR US); **H04L 27/2647** (2013.01 - EP US); **H04L 2025/03426** (2013.01 - EP US)

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